SOME ROCK-DWELLING REPTILES OF THE ARNHEM LAND ESCARPMENT.

By Stephen Swanson

The sandstone escarpment of western Arnhem Land, an area of timeless scenic beauty, immense scientific importance, and more recently, vigorous economic activity, supports animals found nowhere outside the region. A notable example is the Black-Banded Rock Pigeon (Ptilinopus cinctus), and inhabitant of remnant rainforest, and confined to the escarpment.

Mammals such as the Rock Possum (Pteropseudes dahli) and reptiles like the Giant Cave Gecko (Pseudothecadactylus lindneri) occur outside the area only in the Kimberleys of W.A. A similar zoogeographic pattern emerges with a number of escarpment inhabitants.

GIANT CAVE GECKO (Pseudothecadactylus lindneri).

The Giant Cave Gecko is one of the largest and most pugnacious of Australia's geckos, but was, until recently, unknown to science. That it could pass unnoticed is perhaps explained by prior isolation of its habitat. This 18cm gecko is restricted to the rugged sandstone escarpment of western Arnhem Land and the Kimberleys in W.A. It is an inhabitant of caves and crevices, and ventures from its retreat at night to forage on the cliffs and in small trees nearby for insects and spiders. With its pseudo-adhesive sub-digital pads and a

Giant Cave Gecko (pseudothecadactylus lindneri)

Spiny-Tailed Monitor (Varanus acanthurus)

corresponding pad on the undersurface of the tail tip, it is able to scale a perpendicular rock face with apparent ease. It is not suction, nor an adhesive process, as is often supposed, which enables these acrobats of the reptile world to defy the law of gravity, rather the complex surface of the digital pad embraces microscopic irregularities of an ostensibly smooth surface.

OENPELLI PYTHON (Python oenpelliensis)

The recently discovered Oenpelli Python is to date known from but a handful of specimens, all originating from the Arnhem Land escarpment. That such a conspicuous snake eluded discovery for so long emphasises that documentation of the Australian herpetofauna is far from complete. From the small number of known specimens it can be tentatively assumed that it is a large python. The longest measured 4.25 metres, and considering the opinion of aboriginals, one could conclude that it may exceed six metres. At this length it rivals the Amethystine Python (Liasis amethystinus) of north Queensland, considered to be Australia's largest snake. The most striking characteristics of this rare snake are its slender form, long tail and large eyes. In this respect it is reminiscent of the colubrid snakes Dendrelaphis and Boiga. The slender, prehensile body is conducive of an adept climber, which initially suggests an arboreal lifestyle. But such characteristics are equally advantageous for negotiation of precipitous rock formation, and the location of the majority of specimens collected and observed indicates that rocky cliffs are the favoured habitat. It would appear that it is largely a cave-dweller, but a specimen, located by aboriginals and collected by an officer of Territory Parks and Wildlife, was five metres above the ground, in the branches of a tree bordering Cannon Hill Lagoon, over one kilometre from the nearest rock outcrop. Little is known of it habits, but a captive specimen has fed on the Red-collared Lorikeet (Trichoglossus haematodus) and the Black Flying Fox (Pteropus alecto, Miles 1978. I encountered a grossly distended, three metre (approx.) specimen basking in dappled sunlight at the base of a cliff on a outcrop near Nourlangie Rock. Nearby were extensive rock crevices. The recently consumed animal within the snake bore the unmistakable contours of a small wallaby, possibly the Short-eared Rock Wallaby (Petrogale brachyotis), common in the vicinity. The distention was estimated to be 4-5 times the diameter of the snake's neck. The ability of snakes, particularly pythons, to swallow animals of considerably greater girth than their head is well documented, but few people realise the full extent of this capability. The jaws, connected by elasticised ligaments and studded with needle-like, recurved teeth, are dislocated and inched forward independently over the bulk of the prey,

Oenpelli Python (Python Oenpelliensis)

until the only indication of its presence is an area of distended scales midway along the snake's body.

The Nourlangie Rock specimen bore prominent scars on the body, conceivably inflicted by the teeth of a Rock Possum (Pteropseudes dahli) or Northern Native Cat (Dasyurus hallucatus). I would consider it safe to assme that both of these amimals are eaten regularly by the Oenpelli Python.

BLACK-PALMED ROCK MONITOR (Varanus glebopalma)

A number of monitors seek shelter in rock crevices, and some species, such as the Black-palmed Rock Monitor are exclusive to this habitat. The crevices are inaccessible to most predators and also offer protection from temperature extremes. It occurs in scattered environs from the Kimberleys through the Top End of the N.T. to North-western Queensland, and is one of the commonest lizards of the Arnhem Land escarpment. Its specific name refers to the small black pads arranged on the soles of the feet. These probably serve to assist this active lizard while negotiating its rocky habitat, much as rubbersoled shoes are invaluable to a herpetologist in the same environment. An adult specimen measures one metre, but much of this length is contained in its exceptionally long tail, the latter half of which is yellow. Another distinctive trait of the rock monitor is the pale grey confluent pattern on the throat.

SPINY-TAILED MONITOR (Varanus acanthurus)

The Spiny-tailed Monitor generally lives in close association with a rocky environment, but in areas devoid of rock outcrops shelters in a burrow, often amongst Triodia. It is common and widespread throughout most of northern Australia, but in the escarpment area is infrequently encountered, perhaps due to competition from the more active and abundant Black-palmed Rock Monitor (Varanus glebopalma). Its defensive behaviour involves retreating to a crevice, inflating its body, and wedging the heavily ridged tail, rendering itself virtually invulnerable to extrication. In contrast to Spiny-tailed Monitors elsewhere, the distinctive escarpment colour variety is scattered with black spots and bars on the dorsal surface.

MAJOR SKINK (Egernia frerei)

The range of this large skink is somewhat paradoxical. It occurs in three isolated areas; costal Queensland,southern New Guinea and Arnhem Land. Arnhem Land specimens are sombre in colour compared to their eastern counterparts, and the juvenile has yellow spots grouped into cross-bands (Keith Martin pers.comm.) rather than random spotting of the flanks like Queensland juveniles. The specimen illustrated is one of

Blacked-Palmed Rock Monitor (Varanus glebopalma)

Major Skink (Egernia frerei)

a number inadvertently trapped by officers of Territory Parks and Wildlife, at the base of Little Nourlangie Rock, during mammal survey procedures. The Major Skink is a shy, diurnal lizard, and grows to approximately 60cm (Little Nourlangie Rock, Keith Martin pers. comm.)

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